**Prof. Nelson Tansu** is Fellow of the National Academy of Inventors (NAI Fellow; elected in 2016) and ISI Highly Cited Researcher (ISI Web of Science, Clarivate Analytics; since 2018). Tansu is the Daniel E. '39 and Patricia M. Smith Endowed Chair Professor in the Department of Electrical and Computer Engineering (ECE), and Directors for the Integrated Photonics and Nanofabrication Core Laboratory [INCL, university-wide] and Center for Photonics and Nanoelectronics (CPN) at Lehigh University. He had made seminal advances to the invention and innovation, fundamental sciences, and device technologies of III-V and III-Nitride semiconductors. Specifically, his innovations have impacted areas of dilute-nitride diode lasers, and III-nitride semiconductor technologies for energy efficiency. He has more than 16 US patents, and his work is integrated in today's state-of-the-art solid-state lighting technology. He has authored more than 134+ refereed journals and 279+ conference publications. His life story as a professor was published in the form of best-selling children's book "Nelson the Boy who Loved to Read" in his native country Indonesia. He serves as the Editor-in-Chief for Photonics and Editorial Board Members in 8 other leading journals in applied physics and nanotechnology.

Nelson Tansu was born on October 1977 (Medan, Sumatra, Indonesia), and he received his B.S. (Applied Mathematics, Electrical Engineering, and Physics; with Highest Distinction) and his Ph.D. degrees (Electrical Engineering / Applied Physics) from the University of Wisconsin-Madison in May 1998 and May 2003, respectively. Dr. Tansu served as tenure-tracked Assistant Professor (July 2003 – April 2007) and Peter C. Rossin Chair Assistant Professor (April 2007- April 2009) in the Department of Electrical and Computer Engineering (ECE) and Center for Optical Technologies (COT) at Lehigh University. Dr. Tansu served as an Associate Professor (with tenure) in the ECE department and COT at Lehigh from May 2009 till April 2010, and he served as the Class of 1961 Chair Associate Professor (with tenure) from May 2010 till May 2013 and New Century Endowed Chair Professor in Engineering and Applied Science (with tenure) from June 2013 till May 2014. Since June 2014 (till present), he is the Daniel E. '39 and Patricia M. Smith Endowed Chair Professor. During June 2014 (till present), Dr. Tansu has served as the Director of the Center for Photonics and Nanoelectronics (CPN) at Lehigh University. Since July 2018 (till present), he is the Director of the Lehigh's Integrated Photonics and Nanofabrication Core Laboratory [INCL, university-wide]. Dr. Tansu was the WARF Graduate University Fellow and Vilas Graduate University Fellow during his graduate studies at Wisconsin, and he was a recipient of Graduate Dissertator Award at Wisconsin. Other selected awards include: Harold A. Peterson Best ECE Dissertation Award (at Wisconsin), Peter C. Rossin Professorship (at Lehigh), the 2008 Libsch Early Career Research Award (at Lehigh), the 2010 Wisconsin Forward Under 40 for Outstanding Young Alumni Award (at Wisconsin), the Class of 1961 Professorship (at Lehigh), the 2012 Wisconsin Prominent Alumni (at Wisconsin), the New Century Endowed Chair Professorship (at Lehigh), the Smith Family Chair Professorship (at Lehigh), and "Wisconsin Notable Alumni List" (at Wisconsin, since 2016).

Dr. Tansu's research works (~ $13.38 million funding) cover both the theoretical and experimental aspects of the physics of semiconductor optoelectronics materials and devices, the physics of low-dimensional semiconductor (nanostructure), and MOCVD and device fabrications of III-Nitride and III-V-Nitride semiconductor optoelectronics devices on GaAs, InP, and GaN substrates. Dr. Tansu's teaching interests encompass courses in electromagnetisms, applied quantum mechanics, optoelectronics and photonics, physics of semiconductor devices, nitride semiconductor devices: physics and applications. Up to today, Dr. Tansu has published in more than 400+ refereed international journal (134+) and conference (279+) publications, and he holds several US patents (total > 16). His works had also been cited for more than 6100+ times with h-index = 47 (ISI Web of Sciences, Sept. 2018) and 7550+ times with h-index=50 (Google Scholar, Sept. 2018). Dr. Tansu has also reviewed regularly with the leading journals in applied physics, quantum electronics, nanotechnology, photonics, and optoelectronics areas. Previously, Dr. Tansu has also given numerous lectures, seminars, and keynote and invited talks (total > 120+) in universities, research institutions, and conferences in USA, Canada, Europe, and Asia.

Dr. Tansu serves as the Primary Guest Editor of the IEEE Journal of Selected Topics in Quantum Electronics (2008-2009) and IEEE / OSA Journal of Display Technology (2012-2013), and he serves as Associate Editor for IEEE Photonics Journal (2009-2014), Associate Editor for OSA Optical Materials Express (2010-2015), Assistant / Associate Editor for Nanoscale Research Letters (2007-present), Associate Editor for IEEE / OSA Journal of Display Technology (2013-2016), Associate Editor for Journal of Photonics for Energy (2013-2016), Editorial Board for Photonics (2012-present) [as Editor-in-Chief for Photonics; 2013-present], and Editorial Board Member for Nature's Scientific Reports (2014-present). Dr. Tansu has also served as the Technical Program Committee for major technical conferences for IEEE, OSA, SPIE, and APS; the selected lists include: IEEE / OSA Conference on Lasers and Electro-Optics (2007, 2008, 2009, 2013, 2014), SPIE Photonics West (2009-2019), APS March Annual Meeting (2007, 2009, 2010, 2011), ACP (2012, 2013, 2014), IEEE Photonics Conference (2015-2019), and others. He served as the Representative of IEEE Photonics Society in Advisory Committee for IEEE Nanotechnology Council (2013-2016). Dr. Tansu was also selected as Invited General Participant at the 2008 National Academy of Engineering (NAE)'s U.S. Frontiers of Engineering (FOE) Symposium, and he served as the Organizing Committee for the 2009 NAE's U.S. FOE Symposium. Recently, Dr. Tansu has also been invited to participate in the NAE's 2012 German-American Frontiers of Engineering Symposium (GAFOE), and NAE's 2014 Japan-American Frontiers of Engineering Symposium (JAFOE). Since 2014, Dr. Tansu has been appointed as the SPIE Visiting Lecturer (2014-present) and OSA Traveling Lecturer (2014-present). In 2016, Tansu was elected as the Fellow of the National Academy of Inventors (NAI Fellow). He is currently the member of NAI Fellows Induction Conference Program Committee (2018-present). In 2018, Tansu was also selected to be the "New Voices in Sciences, Engineering and Medicine" by the National Academies (NAS, NAE, and NAM). Tansu was also recognized as the ISI Highly Cited Researcher (ISI Web of Science, Clarivate Analytics; since 2018) in "The World's Most Influential Scientific Minds 2018". His life story was published in the form of best-selling children-educational book "Nelson the Boy who Loved to Read" in his native country Indonesia.